3625 Del Amo Boulevard, Suite 180 Torrance, California 90503-1643 (310) 370-8370 (310) 370-7026 FAX www.hygienetech.com

June 5, 2013

California State Board of Equalization 450 N Street Sacramento, California 94279

Document No. 21304001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys

April 2013 Random Sampling

Dear Mr. Gau:

On April 8, 15, 29, and 30, 2013, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving twenty two randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump  $\mathsf{Plus}^{\mathsf{T}}$  equipped with  $\mathsf{Air}\text{-}\mathsf{O}\text{-}\mathsf{Cell}^{\mathsf{T}}$  cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21304001-1, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Epicoccum*, *Nigrospora*, *Oidium*, rusts, smuts, *Stachybotrys*, and/or *Torula*,. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations. The fungal spore types found indoor included *Alternaria*, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, and/or smuts. The distribution of fungal spore types detected in the surveyed areas was consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations

Mr. David Gau June 5, 2013 Document No. 21304001.1 – April 2013 Random Sampling Page 2



indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

Kenny K. Hsi, CIH

Technical Director

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21304001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
APRIL 8, 15, 29, AND 30, 2013

Page 1

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21304001-1 TM01OUT	21304001-1 TM02	21304001-1 TM03	21304001-1 TM04
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 15 feet east of building; approximately five feet above ground/Normal outdoor activities	1 <sup>st</sup> Floor; southeastern stairwell area; about center; approximately five feet above floor/Normal office activities	5 <sup>th</sup> Floor; Room 517; about center; approximately five feet above floor/Normal office activities	9 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities
DATE	04/08/13	04/08/13	04/08/13	04/08/13
START/STOP	15:14:00/15:19:00	15:21:00/15:26:00	15:32:00/15:37:00	15:41:00/15:46:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	67			
Ascospores	270			
Basidiospores	430			110
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	1,600	53	53	
Curvularia				
Epicoccum	13			
Fusarium				
Nigrospora				
Oidium	13			
Other brown				
Other colorless				
Penicillium/Aspergillus types	270			
Pithomyces				
Rusts	13			
Smuts (Periconia, Myxomycetes)	400	13		
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	240	27	27	40
Background debris*	2+	1+	2+	2+
TOTAL**	3,100	67	53	110

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# **HYGIENE TECHNOLOGIES** INTERNATIONAL, INC.

**APPENDIX A** 

**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

TABLE 21304001-1 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **APRIL 8, 15, 29, AND 30, 2013** 

Page 2

/B = 3\

Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )									
SAMPLE NUMBER	21304001-1 TM05	21304001-1 TM06	21304001-1 TM07	21304001-1 TM08OUT					
SAMPLING LOCATION/ACTIVITIES	14 <sup>th</sup> Floor; Men's Restroom; about center; approximately five feet above floor/Normal office activities	17 <sup>th</sup> Floor; Conference Room 1720; about five feet north of entry door; approximately five feet above floor/Normal office activities	22 <sup>nd</sup> Floor; Break Room 2223; approximately five feet above floor/Normal office activities	Outdoors; about 15 feet south of building; approximately five feet above ground/Normal outdoor activities					
DATE	04/08/13	04/08/13	04/08/13	04/15/13					
START/STOP	15:50:00/15:55:00	15:58:00/16:03:00	16:06:00/16:11:00	13:50:00/13:55:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria			13						
Ascospores				110					
Basidiospores									
Bipolaris/Drechslera group									
Botrytis									
Chaetomium									
Cladosporium	53			270					
Curvularia									
Epicoccum									
Fusarium									
Nigrospora									
Oidium									
Other brown									
Penicillium/Aspergillus types									
Pithomyces									
Rusts									
Smuts (Periconia, Myxomycetes)		13	13	53					
Stachybotrys									
Stemphylium									
Torula									
Trichocladium									
Ulocladium									
Hyphal fragments	<13	13	<13	13					
Background debris*	1+	2+	2+	1+					
TOTAL**	53	13	27	430					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# **HYGIENE TECHNOLOGIES** INTERNATIONAL, INC.

**APPENDIX A** 

**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

TABLE 21304001-1 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **APRIL 8, 15, 29, AND 30, 2013** 

Page 3

/R#3\

Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )									
SAMPLE NUMBER	21304001-1 TM09	21304001-1 TM10	21304001-1 TM11	21304001-1 TM12					
SAMPLING LOCATION/ACTIVITIES	3 <sup>rd</sup> Floor; Room 327; Column K22 area; about seven feet northwest of Column K22; approximately five feet above floor/Normal office activities	7 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	10 <sup>th</sup> Floor; Conference Room 1007; entry area; approximately five feet above floor/Normal office activities	15 <sup>th</sup> Floor; Column J22 area; about five feet north of Column J22; approximately five feet above floor/Normal office activities					
DATE	04/15/13	04/15/13	04/15/13	04/15/13					
START/STOP	14:02:00/14:07:00	14:11:00/14:16:00	14:18:00/14:23:00	14:29:00/14:34:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria			13						
Arthrinium									
Ascospores									
Basidiospores									
Bipolaris/Drechslera group									
Botrytis									
Chaetomium									
Cladosporium	110								
Curvularia									
Epicoccum									
Fusarium									
Nigrospora									
Oidium									
Other brown									
Penicillium/Aspergillus types									
Pithomyces									
Rusts									
Smuts (Periconia, Myxomycetes)				13					
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Hyphal fragments	<13	<13	13	<13					
Background debris*	1+	1+	1+	2+					
TOTAL**	110	<13	13	13					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21304001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
APRIL 8, 15, 29, AND 30, 2013

Page 4

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )									
SAMPLE NUMBER	21304001-1 TM13	21304001-1 TM14	21304001-1 TM15OUT	21304001-1 TM16					
SAMPLING LOCATION/ACTIVITIES	18 <sup>th</sup> Floor; Column K23 area; Cubicle 86 entry area; approximately five feet above floor/Normal office activities	20 <sup>th</sup> Floor; Column N20 area; about seven feet west of Column N20; approximately five feet above floor/Normal office activities	Outdoors; about 15 feet east of the building; approximately five feet above ground/Normal outdoor activities	4 <sup>th</sup> Floor; south corridor; about two feet south of Freight Elevator; approximately five feet above floor/Normal office activities					
DATE	04/15/13	04/15/13	04/29/13	04/29/13					
START/STOP	14:37:00/14:42:00	14:46:00/14:51:00	14:31:00/14:36:00	14:40:00/14:45:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria	13		40						
Arthrinium									
Ascospores			53						
Basidiospores			320						
Bipolaris/Drechslera group									
Botrytis									
Chaetomium			93						
Cladosporium			1,700	110					
Curvularia									
Epicoccum									
Myrothecium									
Nigrospora			27						
Oidium									
Other brown									
Penicillium/Aspergillus types			270	53					
Pithomyces									
Rusts			27						
Smuts (Periconia, Myxomycetes)	27		1,100	27					
Stachybotrys									
Stemphylium									
Torula			53						
Ulocladium									
Zygomycetes									
Hyphal fragments	13	<13	67	<13					
Background debris*	1+	1+	3+	1+					
TOTAL**	40	<13	3,600	190					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# **HYGIENE TECHNOLOGIES** INTERNATIONAL, INC.

**APPENDIX A** 

**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

TABLE 21304001-1 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **APRIL 8, 15, 29, AND 30, 2013** 

Page 5

/B # 3\

Results reported in spores per cubic meter of air (spores/M³)									
SAMPLE NUMBER	21304001-1 TM17	21304001-1 TM18	21304001-1 TM19	21304001-1 TM20					
SAMPLING LOCATION/ACTIVITIES	8 <sup>th</sup> Floor; Break Room 808; about center; approximately five feet above floor/Normal office activities	16 <sup>th</sup> Floor; Column K20 area; Cubicle 89; about center; approximately five feet above floor/Normal office activities	21 <sup>st</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	24 <sup>th</sup> Floor; Room 2412; about center; approximately five feet above floor/Sampling activities only					
DATE	04/29/13	04/29/13	04/29/13	04/29/13					
START/STOP	14:47:00/14:52:00	14:56:00/15:01:00	15:03:00/15:08:00	15:11:00/15:16:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria									
Arthrinium									
Ascospores									
Basidiospores									
Bipolaris/Drechslera group									
Botrytis									
Chaetomium									
Cladosporium									
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora									
Oidium									
Other brown									
Penicillium/Aspergillus types									
Pithomyces									
Rusts									
Smuts (Periconia, Myxomycetes)				13					
Stachybotrys									
Torula									
Ulocladium									
Zygomycetes									
Hyphal fragments	<13	<13	<13	<13					
Background debris*	1+	1+	1+	2+					
TOTAL**	<13	<13	<13	13					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21304001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
APRIL 8, 15, 29, AND 30, 2013

Page 6

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)									
SAMPLE NUMBER	21304001-1 TM21OUT	21304001-1 TM22	21304001-1 TM23	21304001-1 TM24					
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 10 feet northeast of the	2 <sup>nd</sup> Floor; Break Room 214; about center;	6 <sup>th</sup> Floor; Column N20 area; about two feet	11 <sup>th</sup> Floor; western corridor; about center;					
	building; approximately five feet above ground/Normal outdoor activities	approximately five feet above floor/Normal office activities	northwest of Column N20; approximately five feet above floor/Normal office	approximately five feet above floor/Normal office activities					
			activities						
DATE	04/30/13	04/30/13	04/30/13	04/30/13					
START/STOP	09:20:00/09:25:00	09:29:00/09:34:00	09:37:00/09:42:00	09:45:00/09:50:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria	27	13		13					
Arthrinium									
Ascospores									
Basidiospores	270			53					
Bipolaris/Drechslera group									
Botrytis									
Chaetomium	40	13	13						
Cladosporium	480								
Curvularia									
Epicoccum									
Fusarium									
Myrothecium									
Nigrospora	27								
Oidium									
Other brown									
Penicillium/Aspergillus types	53								
Pithomyces									
Rusts	13								
Smuts (Periconia, Myxomycetes)	2,900	27	67						
Stachybotrys	13								
Stemphylium									
Torula	120								
Ulocladium									
Hyphal fragments	280	<13	13	27					
Background debris*	3+	2+	2+	2+					
TOTAL**	3,900	53	67	67					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21304001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
APRIL 8, 15, 29, AND 30, 2013

Page 7

Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

Results reported in spores per cubic meter of air (spores/M³)								
SAMPLE NUMBER	21304001-1 TM25	21304001-1 TM26						
SAMPLING LOCATION/ACTIVITIES	19 <sup>th</sup> Floor; Break Room 1905; about center; approximately five feet above floor/Normal office activities	23 <sup>rd</sup> Floor; Room 2322; Reception area; about center; approximately five feet above floor/Normal office activities	This column intentionally left blank.	This column intentionally left blank.				
DATE	04/30/13	04/30/13						
START/STOP	09:53:00/09:58:00	10:02:00/10:07:00						
SAMPLE TIME	5 minutes	5 minutes						
Alternaria								
Arthrinium								
Ascospores								
Basidiospores		53						
Bipolaris/Drechslera group								
Botrytis								
Chaetomium	13							
Cladosporium								
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Oidium								
Other brown								
Penicillium/Aspergillus types								
Pithomyces								
Rusts								
Smuts (Periconia, Myxomycetes)	27	40						
Stachybotrys								
Torula								
Ulocladium								
Zygomycetes								
Hyphal fragments	1+	2+						
Background debris*	<13	27						
TOTAL**	40	93						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



Report for:

Mr. Kenny Hsi, Mr. Larry Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21304001-1 EML ID: 1048481

Approved by:

Lab Manager Malcolm Moody REVISED REPORT

Dates of Analysis: Spore trap analysis: 04-10-2013

Service SOPs: Spore trap analysis (1038 (previously I100000 and I100007)) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Date of Sampling: 04-09-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Date of Receipt: 04-09-2013 Re: 21304001-1 Date of Report: 04-10-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		21304001-1TM01 OUT		21304001-1TMO2		21304001-1TM03		21304001-1TM04	
Comments (see below)	N	Vone	None		None		None		
Lab ID-Version‡:	471	4712686-1		2687-1	471	2688-2	4712689-1		
Analysis Date:	04/1	0/2013	04/1	0/2013	04/1	0/2013	04/1	0/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria	5	67		•		•		•	
Ascospores	5	270							
Basidiospores	8	430					2	110	
Chaetomium									
Cladosporium	30	1,600	1	53	1	53			
Curvularia		,							
Epicoccum	1	13							
Fusarium									
Myrothecium									
Nigrospora									
Oidium	1	13							
Other colorless									
Penicillium/Aspergillus types†	5	270							
Pithomyces									
Rusts	1	13							
Smuts, Periconia, Myxomycetes	30	400	1	13					
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Zygomycetes									
Background debris (1-4+)††	2+		1+		2+		2+		
Hyphal fragments/m3	240		27		27		40		
Pollen/m3	210		< 13		< 13		13		
Skin cells (1-4+)	< 1+		2+		1+		1+		
Sample volume (liters)	75		75		75		75		
§ TOTAL SPORES/m3		3,100		67		53		110	

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1048481, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Date of Sampling: 04-09-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Date of Receipt: 04-09-2013 Re: 21304001-1 Date of Report: 04-10-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21304001-1TM05 21304001-1TM06		01-1TM06	213040	01-1TM07	
Comments (see below)	1	None	None		1	None
Lab ID-Version‡:	471	2690-1	471	2691-1	4712692-1	
Analysis Date:	04/1	10/2013	04/1	0/2013	04/10/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		_			1	13
Ascospores						
Basidiospores						
Chaetomium						
Cladosporium	1	53				
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			1	13	1	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Hyphal fragments/m3	< 13		13		< 13	
Pollen/m3	< 13		27		27	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		53		13		27

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1048481, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

# MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison

Outdoor Location: 21304001-1TM01 OUT

Fungi Identified	Outdoor		Typica	l Outo	loor Da	ıta for	:	ı	Typica	l Outo	loor Da	ata for	:
	data	$A_{]}$	oril in (	Califor	nia (n‡	=16784	4)†	The er	ntire yea	ar in Ca	lifornia	(n‡=18	8141)†
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	67	13	13	27	60	93	55	13	13	27	67	110	54
Bipolaris/Drechslera group	-	7	13	13	27	40	9	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	18	8	13	13	27	47	19
Cladosporium	1,600	110	160	430	1,100	1,900	96	110	210	630	1,700	2,800	97
Curvularia	-	7	8	13	13	27	2	7	13	13	27	53	6
Epicoccum	13	7	13	13	27	53	15	8	13	13	33	53	19
Nigrospora	-	7	10	13	13	27	4	7	13	13	27	53	8
Penicillium/Aspergillus types	270	53	53	160	430	690	79	53	100	210	590	1,000	85
Stachybotrys	-	7	13	13	33	67	5	7	13	13	33	67	4
Torula	-	11	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	270	27	53	110	370	690	75	25	53	110	360	690	71
Basidiospores	430	53	80	270	960	2,000	93	53	80	270	1,000	2,400	93
Oidium	13	13	13	27	53	89	31	13	13	13	40	75	19
Rusts	13	13	13	25	53	93	35	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	400	13	13	40	110	200	67	13	13	40	110	200	68
§ TOTAL SPORES/m3	3,100												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1048481, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $<sup>\</sup>ddagger$ n = number of samples used to calculate data.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21304001-1TM01 OUT:

Species detected		Outdoor	sample s	pores/m3	Typical outdoor range	s Freq.
	<100	1K	10K	>100K	(North America)	%
Alternaria				67	7 - 33 - 570	46
Ascospores				270	13 - 190 - 5,400	76
Basidiospores				430	] 13 - 430 - 22,000	92
Cladosporium				1,600	27 - 480 - 10,000	91
Epicoccum				13	7 - 20 - 330	25
Oidium				13	7 - 13 - 230	12
Penicillium/Aspergillus types				270	13 - 160 - 2,700	69
Rusts				13	7 - 20 - 350	20
Smuts, Periconia, Myxomycetes				400	7 - 50 - 970	64
Total				3,100		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## **Indoor Samples**

**Location:** 21304001-1TMO2

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 2%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3636	dF: 9 Result: 0.7208 Critical value: 0.5833 Outside Similar: Yes	Score: 101 Result: Low	
Species	Detected		Spores/m3		
		<100 1K	10K	>100K	
	Cladosporium			53	
Smuts, Periconia, Myxomycetes				13	
·	Total			67	

EMLab P&K, LLC EMLab ID: 1048481, Page 1 of 4

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

# MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1TM03

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** loor/outdoor)	MoldSCORE**** (indoor/outdoor)				
Result: 1%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	R	esult: 0.2000	Resu Critical	dF: 9 lt: 0.6708 value: 0.5833 Similar: Yes	Score: 102 Result: Low		
Species	Detected							
		<100	1K		10K	>100K		
	Cladosporium					53		
	Total					53		

**Location:** 21304001-1TM04

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ment ratio** or/outdoor)	correla	an rank tion*** outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 3%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	Res	sult: 0.2000	Result: Critical va	7: 9 : 0.5958 :lue: 0.5833 imilar: Yes	Score: 110 Result: Low		
Species	Detected			Spor	es/m3			
		<100	1K		10K	>100K		
	Basidiospores					110		
	Total					110		

Location: 21304001-1TM05

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ent ratio** /outdoor)	MoldSCORE**** (indoor/outdoor)				
Result: 1%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	Result	:: 0.2000	Resu Critical	dF: 9 lt: 0.6708 value: 0.5833 Similar: Yes	Score: 102 Result: Low		
Species	Detected							
		<100	1K		10K	>100K		
	Cladosporium					53		
	Total					53		

EMLab P&K, LLC EMLab ID: 1048481, Page 2 of 4

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1TM06

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** oor/outdoor)	man rank lation*** r/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: < 1%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	Re	esult: 0.2000	Resu Critical	dF: 9 dt: 0.5208 value: 0.5833 e Similar: No	Score: 102 Result: Low		
Species	Detected							
		<100	1K	10K	>100K			
Smuts, F	Periconia, Myxomycetes					13		
	Total				13			

**Location:** 21304001-1TM07

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 5 Result: 0.8571 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3636	dF: 9 Result: 0.3333 Critical value: 0.5833 Outside Similar: No	Score: 107 Result: Low		
Species 1	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Alternaria			13		
Smuts, Periconia, Myxomycetes				13		
	Total			27		

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

EMLab P&K, LLC EMLab ID: 1048481, Page 3 of 4

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1048481, Page 4 of 4

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21304001-1TM01 OUT

Fungi Identified	Oı	ıtd	loc	or	san	np	le	sp	or	es/	mŝ	3	Raw	Spores/
_	<10	0		1	K			10I	K	>	100	K	count	m3
Generally able to grow indoors*														
Alternaria													5	67
Bipolaris/Drechslera group													ND	< 13
Chaetomium													ND	< 13
Cladosporium													30	1,600
Curvularia													ND	< 13
Epicoccum													1	13
Nigrospora													ND	< 13
Penicillium/Aspergillus types†													5	270
Stachybotrys													ND	< 13
Torula													ND	< 13
Seldom found growing indoors**														
Ascospores													5	270
Basidiospores													8	430
Oidium													1	13
Rusts													1	13
Smuts, Periconia, Myxomycetes													30	400
Total														3,067

Fungi Identified	In	Indoor sample spores/m3								3	Raw	Spores/
	<100	)		1K			10K		>10	0K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											1	53
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											1	13
Total												67

100	100 <b>MoldSCORE</b> 200 300							
			100					
			100					
			100					
			101					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			101					
Fina	al MoldSCO	ORE	101					

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1TM03

Fungi Identified	Indo	or	samj	ple s	spore	es/m	3	Raw	Spores/
	<100		1K		10K	>1	00K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total			•						53

,										
100	MoldSCORE 3									
			100							
			100							
			100							
			102							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Fina	al MoldSC	ORE	102							

Fungi Identified	In	do	or	sai	npl	e s	spoi	res	/m3	}	Raw	Spores/
	<100	)		1K			10K		>100	)K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											2	110
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												107

100	MoldSCORE; 100 200 300 Score									
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			110							
			100							
			100							
Final	MoldSCC	RE	110							

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1TM05

Fungi Identified	Indo	or	sam	ple	spor	es/n	13	Raw	Spores/
	<100		1K		10K	>	100K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores				Ш				ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total			·						53

MoldSCORE	
100 200 300	Score
	100
	100
	100
	102
	100
	100
	100
	100
	100
	100
	100
	100
	100
Final MoldSCORE	102

Fungi Identified	In	Indoor sample spores/m3							Raw	Spores/		
	<100			1K			10K		>100	K	count	m3
Generally able to grow indoors*												
Alternaria			Ш								ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium			Ш								ND	< 13
Cladosporium			Ш								ND	< 13
Curvularia											ND	< 13
Nigrospora			Ш								ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes			Ш								1	13
Total												13

100	ORE:	Score	
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			102
Fina	102		

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-09-2013 Date of Receipt: 04-09-2013 Date of Report: 04-10-2013

MoldSCORETM: Spore Trap Report

**Location:** 21304001-1TM07

Fungi Identified	Iı	ndo	0	r	sam	pl	e	sį	ore	s/1	m	3	Raw	Spores/
_	<10	00			1K				10K		>1(	00K	count	m3
Generally able to grow indoors*														
Alternaria													1	13
Bipolaris/Drechslera group													ND	< 13
Chaetomium													ND	< 13
Cladosporium													ND	< 13
Curvularia													ND	< 13
Nigrospora													ND	< 13
Penicillium/Aspergillus types†													ND	< 13
Stachybotrys													ND	< 13
Torula													ND	< 13
Seldom found growing indoors**														
Ascospores													ND	< 13
Basidiospores													ND	< 13
Rusts													ND	< 13
Smuts, Periconia, Myxomycetes													1	13
Total		•							•	-				27

100	)RE:	Score	
			105
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			102
Final	MoldSCC	RE	107

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

EMLab P&K, LLC EMLab ID: 1048481, Page 4 of 4

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

Mr. Kenny Hsi, Mr. Larry Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21304001-1

EMĹ ID: 1051364

Approved by:

Lab Manager Malcolm Moody Dates of Analysis:

Spore trap analysis: 04-17-2013

Service SOPs: Spore trap analysis (1038 (previously I100000 and I100007)) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		)1-1TM08 )UT	213040	01-1TM09	213040	01-1TM10	213040	01-1TM11
Comments (see below)		lone	N	lone	N	Vone	N	Vone
Lab ID-Version‡:	472	7072-1	472	7073-1	472	7074-1	4727075-1	
Analysis Date:	04/1	7/2013	04/17/2013		04/1	7/2013	04/17/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		•		•		•	1	13
Ascospores	2	110						
Basidiospores								
Botrytis								
Chaetomium								
Cladosporium	5	270	2	110				
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†								
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	4	53						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Hyphal fragments/m3	13		< 13		< 13		13	
Pollen/m3	13		< 13		40		< 13	
Skin cells (1-4+)	< 1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		430		110		< 13		13

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1051364, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

Date of Sampling: 04-15-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213040	01-1TM12	213040	01-1TM13	213040	01-1TM14
Comments (see below)	1	None	N	Vone	1	None
Lab ID-Version‡:	472	27076-1	472	7077-1	472	7078-1
Analysis Date:	04/1	17/2013	04/1	7/2013	04/1	17/2013
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		_	1	13		_
Ascospores						
Basidiospores						
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	13	2	27		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		1+	
Hyphal fragments/m3	< 13		13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		13		40		< 13

### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1051364, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

# MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21304001-1TM08 OUT

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:					
	data	April in California (n‡=16784)†						The entire year in California (n‡=188141)†					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	27	60	93	55	13	13	27	67	110	54
Bipolaris/Drechslera group	-	7	13	13	27	40	9	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	18	8	13	13	27	47	19
Cladosporium	270	110	160	430	1,100	1,900	96	110	210	630	1,700	2,800	97
Curvularia	-	7	8	13	13	27	2	7	13	13	27	53	6
Nigrospora	-	7	10	13	13	27	4	7	13	13	27	53	8
Penicillium/Aspergillus types	-	53	53	160	430	690	79	53	100	210	590	1,000	85
Stachybotrys	-	7	13	13	33	67	5	7	13	13	33	67	4
Torula	-	11	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	110	27	53	110	370	690	75	25	53	110	360	690	71
Basidiospores	-	53	80	270	960	2,000	93	53	80	270	1,000	2,400	93
Rusts	-	13	13	25	53	93	35	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	53	13	13	40	110	200	67	13	13	40	110	200	68
§ TOTAL SPORES/m3	430												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

!n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1051364, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21304001-1TM08 OUT:

Species detected		Outdoo	r sample sp	Typical outdoor ranges	Freq.	
	<100 1K 10K >100K				(North America)	%
Ascospores				110	13 - 200 - 5,500	76
Basidiospores				< 13	13 - 430 - 23,000	92
Cladosporium				270	27 - 480 - 10,000	91
Penicillium/Aspergillus types				< 13	13 - 170 - 2,700	69
Smuts, Periconia, Myxomycetes				53	7 - 50 - 970	64
Total				430		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## **Indoor Samples**

Location: 21304001-1TM09

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ment ratio** oor/outdoor)	correla	nan rank ation*** /outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 25%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	Result: 0.5000		Result Critical	F: 3 t: 0.8750 value: N/A Similar: N/A	Score: 106 Result: Low	
Species 1	Detected			Spor	res/m3		
		<100	1K		10K	>100K	
					110		
Total						110	

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected		Spores/m3	
		<100 1K	10K	>100K
	None Detected			< 13

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

# MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1TM11

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** oor/outdoor)	nan rank lation*** r/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 3%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	R	esult: 0.0000	Resul Critical	dF: 4 t: -0.4000 value: N/A Similar: N/A	Score: 105 Result: Low	
Species 1	Detected			Spo	res/m3		
		<100	1K		10K	>100K	
	Alternaria					13	
	Total					13	

**Location:** 21304001-1TM12

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement rati		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 3%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	Result: 0.5000		dF: 3 Result: -0.6250 Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low		
Species	Detected			Spores/m3			
		<100	1K	10K	>100K		
Smuts, F	Periconia, Myxomycetes				13		
	Total				13		

**Location:** 21304001-1TM13

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ent ratio** c/outdoor)	correl	nan rank ation*** r/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 9%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	Resul	t: 0.4000	Result Critical	F: 4 :: -0.6500 value: N/A Similar: N/A	Score: 110 Result: Low		
Species	Detected	<100	1K	Spo	res/m3	>100K		
Smuts, F	Alternaria Periconia, Myxomycetes						13 27 40	
Smuts, F	Periconia, Myxomycetes <b>Total</b>							

EMLab P&K, LLC EMLab ID: 1051364, Page 2 of 3

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

## MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1TM14

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ment ratio** or/outdoor)	MoldSCOF (indoor/ou			
Result: < 1%	dF: 5 Result: 2.7619 Critical value: 11.0705 Inside Similar: Yes	Re	sult: 0.0000	Re Critica	dF: N/A esult: N/A al value: N/A e Similar: N/A	Score: 1 Result: I	
Species	Detected	Spores/m3					
		<100	1K		10K	>100k	
	None Detected						< 13

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1051364, Page 3 of 3

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21304001-1TM08 OUT

Fungi Identified	Oı	ıtdo	or	san	ıpl	e s	spor	·es/	/m3	Raw	Spores/
_	<10	0		1K	_		10K	>	-100k	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										5	270
Curvularia										ND	< 13
Nigrospora										ND	< 13
Penicillium/Aspergillus types†										ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										2	110
Basidiospores										ND	< 13
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes										4	53
Total											427

Fungi Identified	Ind	oor	sam	ple	spor	es/m	13	Raw	Spores/
	<100		1 <b>K</b>		10K	>1	00K	count	m3
Generally able to grow indoors*									
Alternaria				Ш				ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium				Ш				ND	< 13
Cladosporium				Ш				2	110
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									107

100	MoldSCORE; 100 200 300 Score									
			100							
			100							
			100							
			106							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Fina	Final MoldSCORE									

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1TM10

Fungi Identified	Ind	001	r san	aple	S	pore	s/r	n3	Raw	Spores/
_	<100		1K			10K	>	100	count	m3
Generally able to grow indoors*										
Alternaria									ND	< 13
Bipolaris/Drechslera group									ND	< 13
Chaetomium									ND	< 13
Cladosporium									ND	< 13
Curvularia									ND	< 13
Nigrospora									ND	< 13
Penicillium/Aspergillus types†									ND	< 13
Stachybotrys									ND	< 13
Torula									ND	< 13
Seldom found growing indoors**										
Ascospores									ND	< 13
Basidiospores									ND	< 13
Rusts									ND	< 13
Smuts, Periconia, Myxomycetes									ND	< 13
Total						•				N/A

,									
100	100 <b>MoldSCORE</b> 200 30								
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
Fina	100								

Fungi Identified	Indo	or sar	nple spore	s/m3	Raw	Spores/
	<100	1K	10K	>100K	count	m3
Generally able to grow indoors*						
Alternaria					1	13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					ND	< 13
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					ND	< 13
Seldom found growing indoors**						
Ascospores					ND	< 13
Basidiospores					ND	< 13
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					ND	< 13
Total						13

	MoldSCORE; 200 300 Score									
			105							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Final Mo	Final MoldSCORE									

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

# MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1TM12

Fungi Identified	Indo	or	sam	ple	spor	es/n	n3	Raw	Spores/
	<100		1K		10K	>	100K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								ND	< 13
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts				Ш				ND	< 13
Smuts, Periconia, Myxomycetes				Ш				1	13
Total									13

,												
100	Score											
	_											
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			100									
			103									
Fina	Final MoldSCORE											

Fungi Identified	Inc	loo	r s	amp	le :	spor	es/	m3	Raw	Spores/
	<100		1	K		10K		>1001	count	m3
Generally able to grow indoors*										
Alternaria									1	13
Bipolaris/Drechslera group									ND	< 13
Chaetomium									ND	< 13
Cladosporium									ND	< 13
Curvularia									ND	< 13
Nigrospora									ND	< 13
Penicillium/Aspergillus types†									ND	< 13
Stachybotrys									ND	< 13
Torula									ND	< 13
Seldom found growing indoors**										
Ascospores									ND	< 13
Basidiospores									ND	< 13
Rusts									ND	< 13
Smuts, Periconia, Myxomycetes									2	27
Total										40

MoldSCORE; 200 300 Score									
			105						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			105						
Final M	110								

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-15-2013 Date of Receipt: 04-16-2013 Date of Report: 04-17-2013

MoldSCORETM: Spore Trap Report

**Location:** 21304001-1TM14

Fungi Identified	Indoor sample spores/m3										Raw	Spores/
-	<100	)		1K			10K	>	-100	)K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts						Ш					ND	< 13
Smuts, Periconia, Myxomycetes			Ш			П					ND	< 13
Total												N/A

l N										
100	100 200 300									
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
Final	MoldSC	ORE	100							

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

EMLab P&K, LLC EMLab ID: 1051364, Page 4 of 4

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

Mr. Kenny Hsi, Mr. Larry Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21304001-1

EMĹ ID: 1056488

Approved by:

Lab Manager Malcolm Moody Dates of Analysis:

Spore trap analysis: 04-30-2013

Service SOPs: Spore trap analysis (1038 (previously I100000 and I100007)) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Date of Sampling: 04-29-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Date of Receipt: 04-30-2013 Re: 21304001-1 Date of Report: 04-30-2013

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21304001-1 TM15OUT		2130400	01-1 TM16	21304001-1 TM17		
Comments (see below)	1	None	N	None	l N	Vone	
Lab ID-Version‡:	4752563-1		475	2564-1	4752565-1		
Analysis Date:	04/30/2013		04/3	30/2013	04/30/2013		
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria	3	40		_		_	
Ascospores	1	53					
Basidiospores	6	320					
Botrytis							
Chaetomium	7	93					
Cladosporium	31	1,700	2	110			
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora	2	27					
Other colorless							
Penicillium/Aspergillus types†	5	270	1	53			
Pithomyces							
Rusts	2	27					
Smuts, Periconia, Myxomycetes	80	1,100	2	27			
Stachybotrys		,					
Stemphylium							
Torula	4	53					
Ulocladium							
Zygomycetes							
Background debris (1-4+)††	3+		1+		1+		
Hyphal fragments/m3	67		< 13		< 13		
Pollen/m3	350		27		< 13		
Skin cells (1-4+)	< 1+		1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		3,600		190		< 13	

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1056488, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

EMLab ID: 1056488, Page 3 of 3

880 Riverside Parkway, West Sacramento, CA 95605 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Date of Sampling: 04-29-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Date of Receipt: 04-30-2013 Re: 21304001-1 Date of Report: 04-30-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213040	01-1 TM18	2130400	01-1 TM19	21304001-1 TM20		
Comments (see below)	None		N	Vone	None		
Lab ID-Version‡:	4752566-1		475	2567-1	4752568-1		
Analysis Date:	04/30/2013		04/3	30/2013	04/30/2013		
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria		_		_		-	
Ascospores							
Basidiospores							
Botrytis							
Chaetomium							
Cladosporium							
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Other colorless							
Penicillium/Aspergillus types†							
Pithomyces							
Rusts							
Smuts, Periconia, Myxomycetes					1	13	
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Zygomycetes							
Background debris (1-4+)††	1+		1+		2+		
Hyphal fragments/m3	< 13		< 13		< 13		
Pollen/m3	13		< 13		< 13		
Skin cells (1-4+)	< 1+		1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		< 13		< 13		13	

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

# MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21304001-1 TM15OUT

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:						
	data	April in California (n‡=16784)†						The entire year in California (n‡=188141)†						
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %	
Generally able to grow indoors*														
Alternaria	40	13	13	27	60	93	55	13	13	27	67	110	54	
Bipolaris/Drechslera group	-	7	13	13	27	40	9	7	13	13	27	40	12	
Chaetomium	93	8	13	13	27	40	18	8	13	13	27	47	19	
Cladosporium	1,700	110	160	430	1,100	1,900	96	110	210	630	1,700	2,800	97	
Curvularia	-	7	8	13	13	27	2	7	13	13	27	53	6	
Nigrospora	27	7	10	13	13	27	4	7	13	13	27	53	8	
Penicillium/Aspergillus types	270	53	53	160	430	690	79	53	100	210	590	1,000	85	
Stachybotrys	-	7	13	13	33	67	5	7	13	13	33	67	4	
Torula	53	11	13	13	40	67	14	8	13	13	40	67	12	
Seldom found growing indoors**														
Ascospores	53	27	53	110	370	690	75	25	53	110	360	690	71	
Basidiospores	320	53	80	270	960	2,000	93	53	80	270	1,000	2,400	93	
Rusts	27	13	13	25	53	93	35	13	13	13	53	80	27	
Smuts, Periconia, Myxomycetes	1,100	13	13	40	110	200	67	13	13	40	110	200	68	
§ TOTAL SPORES/m3	3,600													

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

!n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1056488, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21304001-1 TM15OUT:

Species detected		Outdoor	sample s	pores/m3		Typical	Freq.		
	<100	00 1K 10K >100K			(Nor	%			
Alternaria				40	0	7 -	33	- 570	46
Ascospores				5.	3	13 -	200	- 5,500	76
Basidiospores				32	20	13 -	430	- 23,000	92
Chaetomium				9.	3	7 -	13	- 160	10
Cladosporium				1,7	00	27 -	480	- 10,000	91
Nigrospora				2	7	7 -	13	- 230	16
Penicillium/Aspergillus types				27	70	13 -	170	- 2,700	69
Rusts				2	7	7 -	20	- 350	20
Smuts, Periconia, Myxomycetes				1,1	00	7 -	50	- 970	64
Torula				5.	3	7 -	13	- 170	9
Total				3,6	000				

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

### **Indoor Samples**

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)					
Result: 5%	dF: 4 Result: 6.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.4615	dF: 10 Result: 0.7636 Critical value: 0.5515 Outside Similar: Yes	Score: 106 Result: Low					
Species	Detected	Spores/m3							
		<100 1K	10K	>100K					
	Cladosporium			110					
Penicillium/Aspergillus types				53					
Smuts, Periconia, Myxomycetes				27					
	Total			190					

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1 TM17

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: < 1%	dF: 4 Result: 6.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low			
Species	Detected	Spores/m3					
		<100 1K	10K	>100K			
	None Detected			< 13			

**Location:** 21304001-1 TM18

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: < 1%	dF: 4 Result: 6.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low			
Species 1	Detected	Spores/m3					
		<100 1K	10K	>100K			
	None Detected			< 13			

**Location:** 21304001-1 TM19

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 6.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species	Detected			
		<100 1K	10K	>100K
	None Detected			< 13

EMLab P&K, LLC EMLab ID: 1056488, Page 2 of 3

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1 TM20

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** oor/outdoor)	corre	man rank lation*** r/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 4 Result: 6.4000 Critical value: 9.4877 Inside Similar: Yes	Re	esult: 0.1818	Resu Critical	IF: 10 lt: 0.5818 value: 0.5515 Similar: Yes	Score: 102 Result: Low		
Species	Detected							
		<100	1K		10K	>100K		
Smuts, F	Periconia, Myxomycetes					13		
	Total					13		

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1056488, Page 3 of 3

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21304001-1 TM15OUT

Fungi Identified	Oı	ıtdo	or	san	ıpl	e s	spor	es/	m3	Raw	Spores/
_	<10	0		1K			10K	>	-100I	count	m3
Generally able to grow indoors*											
Alternaria										3	40
Bipolaris/Drechslera group										ND	< 13
Chaetomium										7	93
Cladosporium										31	1,700
Curvularia										ND	< 13
Nigrospora										2	27
Penicillium/Aspergillus types†										5	270
Stachybotrys										ND	< 13
Torula										4	53
Seldom found growing indoors**											
Ascospores										1	53
Basidiospores										6	320
Rusts										2	27
Smuts, Periconia, Myxomycetes										80	1,100
Total											3,600

Fungi Identified	Inc	loo	rs	sam	ple	S	por	es/	m3	3	Raw	Spores/
	<100			1K			10K		>10	0K	count	m3
Generally able to grow indoors*												
Alternaria		Ш			Ш						ND	< 13
Bipolaris/Drechslera group		Ш			Ш						ND	< 13
Chaetomium		Ш			Ш						ND	< 13
Cladosporium		Ш			Ш						2	110
Curvularia		Ш									ND	< 13
Nigrospora		Ш									ND	< 13
Penicillium/Aspergillus types†											1	53
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes		Ш									2	27
Total												187

MoldSCORE‡ 200 300 Score								
	100							
	100							
	100							
	101							
	100							
	100							
	106							
	100							
	100							
	100							
	100							
	100							
	100							
Final MoldSCORE	106							

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1 TM17

Fungi Identified	Ind	00	r s	am	ple	S	ore	s/r	n3		Raw	Spores/
-	<100		1	١K			10K	>	100	K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total							•					N/A

100	MoldSCORE: 200 300							
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
Fina	Final MoldSCORE							

Fungi Identified	Ind	oor	san	ple :	spore	es/m3	Raw	Spores/
	<100		1K		10K	>100	count	m3
Generally able to grow indoors*								
Alternaria		Ш					ND	< 13
Bipolaris/Drechslera group		Ш					ND	< 13
Chaetomium							ND	< 13
Cladosporium		Ш					ND	< 13
Curvularia		Ш					ND	< 13
Nigrospora							ND	< 13
Penicillium/Aspergillus types†		Ш					ND	< 13
Stachybotrys							ND	< 13
Torula							ND	< 13
Seldom found growing indoors**								
Ascospores							ND	< 13
Basidiospores							ND	< 13
Rusts							ND	< 13
Smuts, Periconia, Myxomycetes							ND	< 13
Total								N/A

MoldSCORE; 200 300 Score									
	100								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
	100								
Final Mold	SCORE 100								

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1 TM19

Fungi Identified	Ind	001	r san	aple	S	pore	s/n	n3	Raw	Spores/
_	<100		1K			10K	>	100	count	m3
Generally able to grow indoors*										
Alternaria									ND	< 13
Bipolaris/Drechslera group									ND	< 13
Chaetomium									ND	< 13
Cladosporium									ND	< 13
Curvularia									ND	< 13
Nigrospora									ND	< 13
Penicillium/Aspergillus types†									ND	< 13
Stachybotrys									ND	< 13
Torula									ND	< 13
Seldom found growing indoors**										
Ascospores									ND	< 13
Basidiospores									ND	< 13
Rusts									ND	< 13
Smuts, Periconia, Myxomycetes									ND	< 13
Total										N/A

,									
100	100 <b>MoldSCORE</b> 200 300								
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
			100						
Fina	100								

Fungi Identified	Indoor sample spores/m.							Raw	Spores/
	<100		1K		10K	>	100K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								ND	< 13
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								1	13
Total									13

100	MoldSCORE; 100 200 300 Score									
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			100							
			102							
Fina	Final MoldSCORE									

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-29-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORETM: Spore Trap Report

\*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\*These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K, LLC EMLab ID: 1056488, Page 4 of 4



Report for:

Mr. Larry Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21304001-1

EMĹ ID: 1056716

Approved by:

Lab Manager Malcolm Moody Dates of Analysis:

Spore trap analysis: 04-30-2013

Service SOPs: Spore trap analysis (1038 (previously I100000 and I100007)) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Larry Sandhu Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21304001	-1 TM21OUT	213040	01-1 TM22	213040	01-1 TM23
Comments (see below)	1	None	N	None	1	Vone
Lab ID-Version‡:	475	3308-1	475	3309-1	4753310-1	
Analysis Date:	04/3	30/2013	04/3	30/2013	04/.	30/2013
,	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	2	27	1	13		•
Ascospores						
Basidiospores	5	270				
Bipolaris/Drechslera group						
Botrytis						
Chaetomium	3	40	1	13		
Cladosporium	9	480				
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora	2	27				
Other colorless						
Penicillium/Aspergillus types†	1	53				
Pithomyces						
Rusts	1	13				
Smuts, Periconia, Myxomycetes	215	2,900	2	27	5	67
Stachybotrys	1	13				
Stemphylium						
Torula	9	120				
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	3+		2+		2+	
Hyphal fragments/m3	280		< 13		13	
Pollen/m3	110		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		3,900		53		67

### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1056716, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

EMLab ID: 1056716, Page 3 of 3

880 Riverside Parkway, West Sacramento, CA 95605 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc.

C/O: Mr. Larry Sandhu Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213040	01-1 TM24	2130400	01-1 TM25	213040	01-1 TM26
Comments (see below)	ľ	None	N	Vone	1	None
Lab ID-Version‡:	475	3311-1	475	3312-1	475	3313-1
Analysis Date:	04/3	30/2013	04/3	30/2013	04/30/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	1	13		_		
Ascospores						
Basidiospores	1	53			1	53
Bipolaris/Drechslera group						
Botrytis						
Chaetomium			1	13		
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			2	27	3	40
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		2+	
Hyphal fragments/m3	27		< 13		27	
Pollen/m3	40		40		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		67		40		93

### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21304001-1 TM21OUT

Fungi Identified	Outdoor	Typical Outdoor Data for:						Typical Outdoor Data for:					
	data	April in California (n‡=16784)†					The entire year in California (n‡=188141)†						
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	27	13	13	27	60	93	55	13	13	27	67	110	54
Bipolaris/Drechslera group	-	7	13	13	27	40	9	7	13	13	27	40	12
Chaetomium	40	8	13	13	27	40	18	8	13	13	27	47	19
Cladosporium	480	110	160	430	1,100	1,900	96	110	210	630	1,700	2,800	97
Curvularia	-	7	8	13	13	27	2	7	13	13	27	53	6
Nigrospora	27	7	10	13	13	27	4	7	13	13	27	53	8
Penicillium/Aspergillus types	53	53	53	160	430	690	79	53	100	210	590	1,000	85
Stachybotrys	13	7	13	13	33	67	5	7	13	13	33	67	4
Torula	120	11	13	13	40	67	14	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	-	27	53	110	370	690	75	25	53	110	360	690	71
Basidiospores	270	53	80	270	960	2,000	93	53	80	270	1,000	2,400	93
Rusts	13	13	13	25	53	93	35	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	2,900	13	13	40	110	200	67	13	13	40	110	200	68
§ TOTAL SPORES/m3	3,900												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

!n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1056716, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup>The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup>These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Larry Sandhu Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21304001-1 TM21OUT:

Outdoor Summary: 2130-100.								
Species detected		Outdoor	sample s	pores/m3	<b>Typical</b>	outdo	or ranges	Freq.
	<100	1K	10K	>100K	(Nor	th An	nerica)	%
Alternaria				27	7 -	33	- 570	46
Ascospores				< 13	] 13 -	200	- 5,500	76
Basidiospores				270	] 13 -	430	- 23,000	92
Chaetomium				40	] 7 -	13	- 160	10
Cladosporium				480	] 27 -	480	- 10,000	91
Nigrospora				27	] 7 -	13	- 230	16
Penicillium/Aspergillus types				53	] 13 -	170	- 2,700	69
Rusts				13	] 7 -	20	- 350	20
Smuts, Periconia, Myxomycetes				2,900	] 7 -	50	- 970	64
Stachybotrys				13	] 7 -	13	- 530	3
Torula				120	] 7 -	13	- 170	9
Total				3,900				

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

### **Indoor Samples**

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreemen (indoor/o		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 1%	dF: 4 Result: 0.4500 Critical value: 9.4877 Inside Similar: Yes	Result: (	0.4615	dF: 10 Result: 0.3697 Critical value: 0.5515 Outside Similar: No	Score: 119 Result: Low		
Species 1	Detected			Spores/m3			
		<100	1K	10K	>100K		
	Alternaria				13		
				13			
Smuts, Periconia, Myxomycetes					27		
	Total				53		

Date of Sampling: 04-30-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Larry Sandhu Date of Receipt: 04-30-2013 Date of Report: 04-30-2013 Re: 21304001-1

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1 TM23

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		corre	man rank lation*** r/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 1%	dF: 4 Result: 0.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.1818		Resu Critical	IF: 10 lt: 0.6424 value: 0.5515 Similar: Yes	Score: 104 Result: Low		
Species 1	Detected	Spores/m3						
		<100	1K		10K	>100K		
Smuts, Periconia, Myxomycetes						67		
	Total					67		

**Location:** 21304001-1 TM24

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 1%	dF: 4 Result: 0.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.3333	dF: 10 Result: 0.3182 Critical value: 0.5515 Outside Similar: No	Score: 105 Result: Low		
Species 1	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Alternaria			13		
Basidiospores				53		
	Total			67		

**Location:** 21304001-1 TM25

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 1%	dF: 4 Result: 0.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.3333	dF: 10 Result: 0.5333 Critical value: 0.5515 Outside Similar: No	Score: 121 Result: Low		
Species	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Chaetomium			13		
Smuts, F	Periconia, Myxomycetes			27		
	Total			40		

EMLab P&K, LLC EMLab ID: 1056716, Page 2 of 3

Client: Hygiene Technologies International, Inc.

C/O: Mr. Larry Sandhu Re: 21304001-1 Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21304001-1 TM26

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 2%	dF: 4 Result: 0.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.3333	dF: 10 Result: 0.6727 Critical value: 0.5515 Outside Similar: Yes	Score: 105 Result: Low			
Species	Detected		Spores/m3				
		<100 1K	10K	>100K			
	Basidiospores			53			
Smuts, F	Periconia, Myxomycetes			40			
	Total			93			

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1056716, Page 3 of 3

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Larry Sandhu

Re: 21304001-1

 $\mathbf{MoldSCORE}^{\mathsf{TM}}\mathbf{:}\ \mathbf{Spore}\ \mathbf{Trap}\ \mathbf{Report}$ 

<b>Outdoor Sample:</b> 21304001-17	M	21	O	U	Γ									
Fungi Identified	Outdoor sample spores/m3									Raw	Spores/			
	<10	00			1K				10K	>	100	K	count	m3
Generally able to grow indoors*														
Alternaria												Ш	2	27
Bipolaris/Drechslera group													ND	< 13
Chaetomium													3	40
Cladosporium												Ш	9	480
Curvularia													ND	< 13
Nigrospora													2	27
Penicillium/Aspergillus types†													1	53
Stachybotrys													1	13
Torula													9	120
Seldom found growing indoors**														
Ascospores													ND	< 13
Basidiospores													5	270
Rusts													1	13
Smuts, Periconia, Myxomycetes													215	2,900
Total														3,907

Fungi Identified	In	ıdo	or	san	ıp	le	S]	por	es	m	13	Raw	Spores/
	<10	0		1K				10K		>1	001	count	m3
Generally able to grow indoors*													
Alternaria			Ш								Ш	1	13
Bipolaris/Drechslera group												ND	< 13
Chaetomium												1	13
Cladosporium												ND	< 13
Curvularia												ND	< 13
Nigrospora												ND	< 13
Penicillium/Aspergillus types†												ND	< 13
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												ND	< 13
Basidiospores												ND	< 13
Rusts												ND	< 13
Smuts, Periconia, Myxomycetes												2	27
Total													53

100	100 <b>MoldSCORE</b> 200 300										
			105								
			100								
			119								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
Fina	al MoldSCO	ORE	119								

Client: Hygiene Technologies International, Inc. C/O: Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1 TM23

Fungi Identified	Indo	or	samj	ple s	spore	es/n	13	Raw	Spores/
	<100		1K		10K	>1	00K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								ND	< 13
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								5	67
Total									67

MoldSCORE:	
	100
	100
	100
	100
	100
	100
	100
	100
	100
	100
	100
	100
	103
Final MoldSCORE	103

Fungi Identified	Inde	or	sam	ple s	pore	es/n	n3	Raw	Spores/
	<100		1K		10K	>	100F	count	m3
Generally able to grow indoors*									
Alternaria						Ш		1	13
Bipolaris/Drechslera group								ND	< 13
Chaetomium						Ш		ND	< 13
Cladosporium								ND	< 13
Curvularia								ND	< 13
Nigrospora						Ш		ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								1	53
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									67

MoldSCORE‡										
100	100 200 300									
			105							
			100							
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			105							
			100							
			100							
Fin	Final MoldSCORE									

Client: Hygiene Technologies International, Inc. C/O: Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21304001-1 TM25

Fungi Identified	Ind	00	r	samj	ple	S	pore	es/i	m.	3	Raw	Spores/
	<100			1K			10K	3	>10	0K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											1	13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											2	27
Total												40

MoldSCORE 200 300	
	100
	100
	121
	100
	100
	100
	100
	100
	100
	100
	100
	100
	100
Final MoldSCORE	121

Fungi Identified	Inde	or	sam	ple s	spore	es/n	n3	Raw	Spores/
	<100		1K		10K	>	1001	count	m3
Generally able to grow indoors*									
Alternaria		Ш						ND	< 13
Bipolaris/Drechslera group		Ш					Ш	ND	< 13
Chaetomium								ND	< 13
Cladosporium		Ш						ND	< 13
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								1	53
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								3	40
Total									93

MoldSCORE; 100 200 300 Score			
		100	
		100	
		100	
		100	
		100	
		100	
		100	
		100	
		100	
		100	
		105	
		100	
		100	
Final Mol	105		

Client: Hygiene Technologies International, Inc. C/O: Mr. Larry Sandhu

Re: 21304001-1

Date of Sampling: 04-30-2013 Date of Receipt: 04-30-2013 Date of Report: 04-30-2013

### MoldSCORETM: Spore Trap Report

\*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\*These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K, LLC EMLab ID: 1056716, Page 4 of 4

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Lab Destination: (Z.M)		Lab Contact:			
SAMPLE ID VOLUM	IE MEDIA		-	QUESTED	<u>certing</u>
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21304001-1 TM03 75L	I . — . — . — .				
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. Sampled by: Samby	on 4/8/13@17	eceived by:	11/	) 4/	9/12/2014
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ah II O	Please include signatus	e, date, and time		· ·	
ab Use Only:					
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Project Number/Pureha	ne Order: Z	1304001-	Date Submitted: 4/15/13
Project Contact:	Sandh	u/K-hsi	· · · · · · · · · · · · · · · · · · ·
Lab Destination:	EMLA	R	" -
SAMPLE ID	VOLUME	MEDIA	Lab Contact: SAMPLE PECETYTHI
21304001-1-TM0800		<del></del>	ANALYSIS REQUESTED
2130400 - TMO9		Arra-Cell	Spore Trap Analysis
2130400-1 TM10	75L	mro-cell	
21304001-17911	75L	ATTO-CELL	
2-1304001-1 TM12	75 L	A1X-0-CEI	
2.1304001-1 TM13	· <del>-</del>	ATX-0-CELL	
2130400-17M14	75L 75L	ATS-O-COH	
7 1027 71-114	- <u> </u>	Alk-o-cell	
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Torrance, Celifornia 90503 1643

(310) 370-8370 (310) 370-2474 FAX www.hygienetech.com

Project Number/Puzaha	on Ondon	110 /	10 - 1	
Project Contact:	scoraer:	15040	Date Submitted: 4/29/13	
			Turnaround Required: Normal	
Lab Destination:	2 ML	772	Lab Contact: Sample Receiving	
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED	
21304001-1 TM1501		Air-o-cell		
21304001-1 TMIC				
2/304001-1 1m17		<u></u>		
21384001-1 TM18		. <u> </u>		
2(3)4001-1TM19				
21364001-1-TM20	구5ㄴ			
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z. Relinquished by: 💆	tamolin or	<u>~4 [29] 3</u> @ ;	Received by: Whatatracy 43013 844	
3.Relinguished by: _	·		Received by:	
Please include signature, date, and time				
Lab Use Only:				





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3625 Del Ama Bobie-ara 2003-1643 Torrance, Cauforna 90503-1643

(310) 370 9370 (310) 270-2474 FAX www.hygienersch.com

		. <u> </u>		
Project Number/Purcha	sc Order:	1304001	/ Date Submitted: 41	30/13
Project Contact:				_
Lab Destination:		¬a	Lab Contact: <u>Sample Recei</u>	
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED	
21304001-1 779210UL	. 75L	Arr-orcell		1 453
2130400-1 TM22	256			J
2130400H TM 23				
21304001-177724	756			
213040011 7M 25	75 L			
2130400H TM26	<u>756</u>			
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3. Relinquished by:	<del></del> :		Received by:	1150
Lab Use Only:		Please anclude signar	ours, dais, and time	
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